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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,290	02/28/2002	Toshio Kazama	AB-1215 US	3057

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EXAMINER

TSUKERMAN, LARISA Z

ART UNIT	PAPER NUMBER
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2833

DATE MAILED: 03/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/070,290

Applicant(s)

KAZAMA, TOSHIO

Examiner

Larisa Z Tsukerman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE dt. 01/26/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/25/03 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 2, 4, 5, 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable by DiRenzo (3599326) in view of Onodera et al. (6133537).

In regard to claims 1, 9 and 10, DiRenzo discloses a conductive contact member 12 for establishing an electric contact by being applied to an object to be contacted that includes solid solder, comprising a layer of highly electrically conductive material (**silver sulfide**) **resistant to solder deposition** (see Fig. 6 and Col. 1, lines 71-72 and Col. 3, lines 1-9, 22-24) **wherein** the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member (Col. 3, lines 22-25) may not be contaminated by deposition of solder

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from the object to be contacted. However, DiRenzo lacks that **the layer** essentially consisting of **1)** gold containing a small amount of silver/ or **2)** an alloy of gold added with silver/ or **3)** homogeneous mixture of gold added with silver, the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member (Col. 3, lines 22-25) may not be contaminated by deposition of solder from the object to be contacted. Onodera et al. teach contact comprises of AuAg(Pd) alloy that has a high anti - adhesion property and a highly stable contact resistance (see Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and **for the same reason** to use AuAg(Pd) alloy, as taught by Onodera et al., in structure of DiRenzo.

In regard to claim 2, DiRenzo discloses the layer formed by plating (Col.3, lines 22-24)

In regard to claim 5, DiRenzo discloses the conductive contact member is selected from the group consisting of a needle member having a pointed end (see Fig. 6).

In regard to claim 4, DiRenzo modified by Onodera et al. discloses most of the claimed invention except for that silver is added to gold by 0.01 to 8%.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add silver to gold in such range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

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In regard to claim 6, DiRenzo modified by Onodera et al. discloses most of the claimed invention except for that the conductive member made of steel.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the conductive member made of steel, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Claims 1, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akram et al. (6426642) in view of Onodera et al. (6133537).

Akram et al. discloses a conductive contact member 62 for establishing an electric contact by being applied to an object to be contacted that includes solid solder, comprising a plated layer of highly electrically conductive material resistant to solder deposition 64 (see Fig. 22-24) and the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member may not be contaminated by deposition of solder from the object to be contacted formed at least over a conductive **contact part** of the contact member. However, Akram et al. does not disclose that that **the layer** essentially consisting of **1)** gold containing a small amount of silver/ or **2)** an alloy of gold added with silver/ or **3)** homogeneous mixture of gold added with silver, the layer being formed at least over a conductive contact part of the conductive contact member so that the conductive contact part of the conductive contact member (Col. 3, lines 22-25) may not

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be contaminated by deposition of solder from the object to be contacted. Onodera et al. teach contact comprises of AuAg(Pd) alloy that has a high anti - adhesion property and a highly stable contact resistance (see Abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made and **for the same reason** to use AuAg(Pd) alloy, as taught by Onodera et al., in structure of Akram et al.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiRenzo (3599326) in view of Onodera et al. (6133537), as applied to claim 1 above, and further in view of Loranger et al. (5791914).

In regard to claim 7, DiRenzo as modified by Onodera et al. discloses most of the claimed invention except for the contact member is in a form of a compression coil spring. Loranger et al. teach the contact member is in a form of a compression coil spring 11 (see Fig. 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made further modify DiRenzo's invention by constructing a contact as taught by Loranger et al. in order to provide a better flexibility of contact or wiping function. Also, as a result of this modification the solder resistant layer is formed around a coil wire forming the coil spring.

In regard to claim 8, DiRenzo as modified by Onodera et al. and Loranger et al. discloses the contact member 11 is in a form of a compression coil spring having a **contact part 29** in a form of **closely wound turns** of a coil wire (see Fig.5) and the solder resistant layer is formed over an outer surface of the **closely wound turns**.

Response to Arguments

Applicant's arguments with respect to claims 1-2, and 4-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Paszkiet et al. (5928568).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Larisa Z Tsukerman whose telephone number is (571)-272-2015. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on (571)-272-2800 ex. 33. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0956.

L.T.
March 03, 2004



**THO D. TA
PRIMARY EXAMINER**